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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/586,291 | 03/14/2007 | Duncan Hamilton Reid | 0002978USU/2297 | 4133 |
| 27623 | 7590 | 10/27/2010 | EXAMINER | |
| OHLANDT, GREELEY, RUGGIERO & PERLE, LLP ONE LANDMARK SQUARE, 10TH FLOOR STAMFORD, CT 06901 | | | LEWIS, JUSTIN V | |
| ART UNIT | | PAPER NUMBER | | 3725 |
| MAIL DATE | | DELIVERY MODE | | 10/27/2010 PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/586,291 | REID ET AL. | |
| | Examiner | Art Unit | |
| | JUSTIN V. LEWIS | 3725 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 July 2010.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3,5-7,9-22 and 24-34 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-3,5-7,9-22 and 24-34 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 13 July 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 19 July 2010 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claim 1-3, 5-7, 9-10, 18-22, 24 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0104176 to Schwenk (“Schwenk”) and U.S. Patent No. 4,290,630 to Lee (“Lee”).

Regarding claim 1, Schwenk and Lee disclose a security substrate comprising: i) a substrate (Schwenk security documents 1a-b, shown in figs. 2a-b; Lee fig. 5); and ii) at least two elongate security elements (Schwenk 7a-d, 8a-b and paragraphs 17 and 37; Lee threads 2 and col. 3, lines 53-60) wherein said at least two security elements are at least partially embedded within said substrate and run substantially parallel to each other with a gap therebetween, wherein said at least two security elements and said gap occupy a zone (see Schwenk figs. 2a-b and Lee figs. 3a-d), wherein said at least two security elements have different security features (see Schwenk paragraph 37; see Lee figs. 3a-g, showing physically different security elements), but fail to specifically disclose: i) each security element having a width of less than or equal to 6mm; ii) the gap between parallel security elements being no greater than 10mm; and iii) said zone having a total cross-directional width that is less than or equal to 14mm. However, it has been held that “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 2, Schwenk and Lee disclose a security substrate as claimed in claim 1, but fail to specifically disclose said at least two security elements each having a width of less than or equal to 4mm. However, it has been held that “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the

optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 3, Schwenk and Lee disclose a security substrate as claimed in claim 2, but fail to specifically disclose said at least two security elements each having a width of less than or equal to 2mm. However, it has been held that "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 5, Schwenk and Lee disclose a security substrate as claimed in claim 1, but fail to specifically disclose said gap being greater than or equal to 1mm. However, it has been held that "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 6, Schwenk and Lee disclose a security substrate as claimed in claim 5, but fail to specifically disclose said gap being greater than or equal to 2mm. However, it has been held that "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 7, Schwenk and Lee disclose a security substrate as claimed in claim 1, wherein said at least two security elements have identical security features (see Schwenk fig. 1 and paragraph 36, describing an alternate embodiment and Lee figs. 3a-d).

Regarding claim 9, Schwenk and Lee disclose a security substrate as claimed in claim 1, wherein said at least two security elements wander from a linear path in a cross-direction of said substrate, and wherein said cross-directional width of said zone includes an amplitude of said wander (see Schwenk figs. 2a-b and Lee figs. 3a-g)

Regarding claim 10, Schwenk and Lee disclose a security substrate as claimed in claim 1, wherein at least one of said at least two security elements are wholly embedded within said substrate (see Schwenk paragraph 18; note that areas 5a-b, 7a-b and 7a-d are wholly embedded in their respective substrate security documents; also see Lee abstract).

Regarding claim 18, Schwenk and Lee disclose a security article comprising: i) a substrate (Schwenk fig.1; Lee fig. 5); and ii) at least two elongate security threads (Schwenk 7a-d, 8a-b and paragraphs 17 and 37; Lee threads 2 and col. 3, lines 53-60), wherein said at least two security threads are at least partially embedded within said substrate and run substantially parallel to each other with a gap therebetween, wherein said at least two security threads and said gap occupy a zone (see Schwenk figs. 2a-b and Lee figs. 3a-d), but fails to specifically disclose: i) each of said security threads having a width of less than or equal to 6mm; ii) said gap between said security threads being no greater than 10mm; and iii) said zone having a total cross-directional width that is less than or equal to 18mm. However, it has been held that “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 19, Schwenk and Lee disclose a security substrate as claimed in claim 1, wherein said substrate is plastic (see Schwenk paragraph 2 and Lee col. 1, lines 15-16).

Regarding claim 20, Schwenk and Lee disclose a security substrate as claimed in claim 19, wherein said substrate is a filmic plastic (see Schwenk paragraph 2 and Lee col. 1, lines 15-16).

Regarding claim 21, Schwenk and Lee disclose a security substrate as claimed in claim 1, wherein said substrate is a mix of paper and plastic fibres (see Schwenk paragraph 2 and Lee col. 1, lines 15-16).

Regarding claim 22, Schwenk and Lee disclose a security substrate as claimed in claim 1, wherein said substrate is paper (see Schwenk abstract and Lee col. 1, line 17).

Regarding claim 24, Schwenk and Lee disclose a security article as claimed in claim 18, wherein said security article is a banknote (see Schwenk paragraph 24 and Lee col. 1, lines 8-9).

Regarding claim 30, Schwenk and Lee disclose a security article as claimed in claim 18, wherein said security article is a passport (see Schwenk paragraph 24 and Lee col. 1, lines 5-10).

Regarding claim 31, Schwenk and Lee disclose a security article as claimed in claim 18, wherein said security article is a certificate (see Schwenk paragraph 24 and Lee col. 1, lines 5-10).

Regarding claim 32, Schwenk and Lee disclose a security article as claimed in claim 18, wherein said security article is a document of value (see Schwenk paragraph 24 and Lee col. 1, lines 5-10).

Regarding claim 33, Schwenk and Lee disclose a security substrate comprising: i) a substrate having a zone with a cross-directional width (note that the areas on the Schwenk and Lee substrates containing security elements may be considered such a “zone with a cross-directional width”); ii) a first elongate security thread (see Schwenk 7a-d, 8a-b and paragraphs 17 and 37; Lee threads 2 and col. 3, lines 53-60) at least partially embedded within said substrate (see Schwenk paragraph 18; note that areas 5a-b, 7a-b and 7a-d are wholly embedded in their respective substrate security documents; also see Lee abstract) and disposed in said zone (see Schwenk figs. 2a-b and Lee figs. 3a-d), said first elongate security thread having a first security feature (see Schwenk paragraph 37; also see Lee figs. 3a-g, showing physically different security elements); and iii) a second elongate security thread (see Schwenk 7a-d, 8a-b and paragraphs 17 and 37; Lee threads 2 and col. 3, lines 53-60) at least partially embedded within said substrate (see Schwenk paragraph 18; note that areas 5a-b, 7a-b and 7a-d are wholly embedded in their respective substrate security documents; also see Lee abstract) and disposed in said zone (see Schwenk figs. 2a-b and Lee figs. 3a-d), said second elongate security thread having a second security feature (see Schwenk paragraph 37; also see Lee figs. 3a-g, showing physically different security elements), said first and second elongate security threads running substantially parallel to each other within said zone with a gap therebetween (see Schwenk figs. 2a-b

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and Lee figs. 3a-d), wherein said first and second security features have a difference (see Schwenk paragraph 37; also see Lee figs. 3a-g, showing physically different security elements), but fails to disclose: i) said cross-directional width being less than or equal to 18mm; and ii) said gap being no greater than 10mm. However, it has been held that “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 34, Schwenk and Lee disclose a security article as claimed in claim 32, wherein said difference is selected from the group consisting of opposing holographic movement effects, mutually opposed holographic image replay, different information, different viewing angles, different visual impression, different thermochromic transition temperatures, different colorshift features, and opposed color switch features (see Schwenk paragraph 37; also see Lee figs. 3a-g, showing physically different security elements, which provides for differing visual impressions).

5. Claims 11-17 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwenk and Lee in view of U.S. Patent No. 6,471,247 to Hardwick et al. (“Hardwick”).

Regarding claim 11, Schwenk and Lee disclose a security substrate as claimed in claim 1, but fails to disclose at least one of said at least two security elements being exposed at windows in at least one surface of said substrate.

Hardwick teaches the concept of providing a window in at least one surface of a substrate (18, see fig. 5, showing a single security element and fig. 2, showing multiple security elements exposed in the window).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to position a Hardwick window on the Schwenk and Lee substrates in order to render a security device lying beneath visible, as explicitly taught by Hardwick (see abstract).

Regarding claim 12, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 11, wherein all of said at least two security elements are exposed via the same window (Hardwick fig. 2).

Regarding claim 13, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 1, wherein each of said at least two security elements is exposed at separate windows to those at which the other security element is exposed (note that windows may be positioned upon the substrates as desired).

Regarding claim 14, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 13, wherein said window via which one of said at least two security elements is exposed is in register with said window via which another of said at least two security elements is exposed (note that windows may be positioned upon the substrates as desired).

Regarding claim 15, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 13, wherein said window via which one of said at least two security elements is exposed is not in register with said window via which another of

said at least two security elements is exposed (note that windows may be positioned upon the substrates as desired).

Regarding claim 16, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 1, wherein each of said at least two security elements is provided with at least one security feature which is registered with at least one security feature on another of said at least two security elements (note that windows may be positioned upon the substrates as desired).

Regarding claim 17, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 1, wherein each of said at least two security elements is provided with at least one security feature which is registered with at least one security feature on said substrate (note that windows may be positioned upon the substrates as desired).

Regarding claim 25, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 1, wherein at least one of said two security elements is exposed in at least one hole or aperture through the substrate (see Hardwick fig. 2).

Regarding claim 26, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 25, wherein all of said at least two security elements are exposed at the same hole or aperture (see Hardwick fig. 2).

Regarding claim 27, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 25, wherein each of said at least two security elements is exposed in a separate hole or aperture to those at which the other security element is exposed (note that windows may be positioned upon the substrates as desired).

Regarding claim 28, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 27, wherein said hole or aperture via which one of said at least two security elements is exposed is in register with said hole or aperture via which another of said at least two security elements is exposed (note that windows may be positioned upon the substrates as desired).

Regarding claim 29, Schwenk and Lee in view of Hardwick discloses a security substrate as claimed in claim 27, wherein said hole or aperture via which one of said at least two elements is exposed is not in register with said hole or aperture at which another of said at least two security elements is exposed (note that windows may be positioned upon the substrates as desired).

Response to Arguments

In response to Applicants' argument that Schwenk fails to disclose a gap between fibers of no greater than 10mm or occupy a zone that has a total cross-directional width that is less than or equal to 14mm as now recited by amended claim 1 (see Applicants' Arguments/Remarks pg. 9, lines 7-11), Examiner respectfully directs Applicants to see the treatment of claim 1 in the rejection thereof, above.

In response to Applicants' argument that Lee's explicit mention of security elements in plural form should be interpreted according to the manner subjectively desired by Applicants (see Applicants' Arguments/Remarks pg. 10, lines 3-5), Examiner appreciates Applicants' provision of said interpretation, but maintains that the actual words of the reference must be relied upon in their ordinary sense absent some explicit

suggestion to do otherwise. Applicants' subjective beliefs with respect to said words do not amount to such a suggestion.

In response to Applicants' argument that there is no teaching or suggestion that the multiple Lee threads have different security features as required by amended claim 1 (see Applicants' Arguments/Remarks pg. 10, lines 18-21), Examiner respectfully asserts that given that the security threads are at least two physically separate threads, they would amount to elements having different security features, as they are physically separate from one another, and no two such threads will be exactly the same).

In response to Applicants' argument that the Office Action has simply pieced the Schwenk and Lee references to support a rejection on the basis of hindsight (see Applicants' Arguments/Remarks pg. 11, lines 22-24), Examiner respectfully invites Applicants to thoroughly read the Office Action and understand that no combination of Schwenk and Lee has been proposed. Rather, the Office Action merely demonstrates that at least two prior art references disclose subject matter causing Applicants' claims to presently be not in condition for allowance.

In response to Applicants' argument that the claimed widths, gaps and zones have been very carefully selected to provide an intended visual impact (see Applicants' Arguments/Remarks pg. 12, lines 11-12), Examiner respectfully asserts that Applicants' claimed width, gap and zone specifications are rather broad in nature, refuting said argument. For example, claim 5 claims a gap measuring greater than or equal to 1mm, while claim 6 claims a gap measuring greater than or equal to 2mm, both of said claims having a maximum gap width of 10mm (per claim 1). As such, it could reasonably be

implied that the precise sizes of Applicants' elements are not exactly critical to the operation of the invention.

In response to Applicants' arguments regarding new claims 33-34 (see Applicants' Arguments/Remarks pg. 15, line 2- pg. 16, line 1), Examiner respectfully directs Applicants to see the treatment of said new claims 33-34 provided in the instant Office Action.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN V. LEWIS whose telephone number is (571)270-5052. The examiner can normally be reached on M-F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on (571) 272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 3725
/JVL/